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The remote control

MONITOR	**TV monitor**: To switch between TV reception and VCR playback
CHILD LOCK	**Child lock**: To switch child lock on/off
SELECT	**Select**: Selecting functions
STANDBY/ON ⏻	**Switch on or off**: To switch set on or off, interrupt menu function, interrupt a programmed recording (TIMER)
0-9	**Number buttons**: 0 - 9
TV	**To call up additional TV functions**: Additional TV functions for TV sets with the same remote control code (RC5)
TURBO TIMER	**TurboTimer**: To programme a recording with the function Turbo Timer
TIMER ⏲	**TIMER**: To make a TIMER programming with SHOWVIEW or to alter or clear a programmed TIMER
RECORD ●	**Record**: To record the TV channel selected at this moment
MENU	**Menu**: To call up or end main menu
CLEAR (CL)	**Delete**: To delete last entry/Clear programmed recording (TIMER)
P ↑+	**Select**: To select the next line or programme number
P ↓–	**Select**: To select the previous line or programme number
←◿–	**Select**: Cursor left
◿+→	**Select**: Cursor right
OK	**Store/Confirm**: To store or confirm entry
INDEX ▶|	**Index search**: In combination with ◁◀ / ▶▷ : to search for previous or next recording on the cassette
STILL ▶|◀	**Still picture**: To stop the tape and show a still picture
◁◀	**Rewind**: During STOP and STANDBY: rewind, during PLAYBACK: reverse scanning
STOP ■	**Pause/Stop**: To stop the tape, except during TIMER-recording
PLAY ►	**Playback**: To play a cassette
▶▷	**Forward wind**: During STOP and STANDBY: forward wind, during PLAYBACK: forward scanning

Additional TV functions

Hold down **TV** and select the corresponding function using the following buttons.

STANDBY/ON ⏻	**Standby** : To switch off the TV
MUTE 🔇	**TV sound off**: To switch the sound on or off
AV	To switch the TV to Audio/Video in-socket
P ↑ **+**	**Select**: To select a programme number
P ↓ **−**	**Select**: To select a programme number
← ◿ **−**	**TV volume**: TV volume down
◿ **+** →	**TV volume**: TV volume up

Front of the device

STANDBY/ON ⏻**/I**	**Switch on or off**: To switch off or on, interrupt a function, interrupt a programmed recording (TIMER)
RECORD ●	**Record**: To record the TV channel selected at this moment
PROGRAMME −	**Select**: One line or programme number down
PROGRAMME +	**Select**: One line or programme number up
STOP/EJECT ■**/**⏏	**Pause/Stop, eject cassette**: To stop the tape and eject the cassette
◁◀	**Rewind**: During STOP and STANDBY: rewind, during PLAYBACK: reverse scanning
▶	**Playback**: To play a cassette
▶▷	**Forward wind**: During STOP and STANDBY: forward wind, during PLAYBACK: forward scanning

The symbols on your video recorder display

These symbols can light up on your video recorder display:

	This is where the current operating mode is shown as a symbol.
LP	When you have switched on the LP (Long Play) function or when you play a tape that has been recorded in LP (Long Play).
	When you have switched on the child lock.
	When a satellite recording has been programmed.
DEC	When a decoder has been allocated to the TV channel (currently selected programme number on the video recorder) you have currently selected on the video recorder.
	When you play a cassette that has been recorded with hifi sound, or when a hifi sound is transmitted.
	When you are making a recording.
	When you have programmed a recording or when a programmed recording is being made.
D	When you are programming daily recordings.
W	When you are programming weekly recordings.
	When you have put a cassette in the video recorder.
DATE	When the date of the programmed recording is shown.
START	When the start time of the programmed recording is shown.
PROG.	When the programme number of the programmed recording is shown.
END	When the end time of the programmed recording is shown.
VPS/PDC	Video Programming System / Programme Delivery Control: when a VPS or PDC code is being transmitted.
	Display of programme number of the TV channel / tape position / channel name / function.
	Tape position in seconds.

1 Introduction

Dear Philips customer,

Instruction manuals are usually very dry since they are technically-oriented and often poorly translated. I have been employed by Philips for this reason.

Allow me to introduce myself.
My name is Phil. I will be guiding you through the instruction manual and try to be of help in operating your new device. At appropriate points along the way, I will be providing you with the following information:

Excuse me?
Here I will be explaining seemingly unimportant things.

Tip
Here I will be giving you instructions on functions that help make it easier to use your device.

Problem
Here I will help you to find the cause of problems and their solutions.

For experts
Here I will be giving you instructions on functions that are necessary for special applications.

I hope you have lots of fun with your new device.

Phil

P.S. If you have questions or if problems come up during operation, please see the helpful information in the chapter 'Before you call an engineer'. If this doesn't help you to resolve the problem, please call the **customer support service** for your country. The corresponding telephone numbers and e-mail addresses can be found on the last page of this instruction manual.

Welcome to the large family of owners of PHILIPS VHS video recorders.

Thank you for buying a VR670B-VR670W/58 .
Please take the time to read this operating manual before using your video recorder. It contains important information and notes regarding operation.
The video recorder should **not be turned on immediately after transportation** from a cold to a hot area or vice versa, or in conditions of extreme humidity.
Wait at least **three hours** after transporting the device. The video recorder needs this time in order to become acclimatised to its new environment (temperature, air humidity, etc.).

Your Philips team hopes that you will enjoy using your new video recorder.

This video recorder is used for the recording and playback of VHS video cassettes.
Cassettes with the VHS-C label (VHS cassettes for camcorders) may only be used with a suitable adapter.

This product complies with the requirements of Directive 73/23/EEC +89/336/EEC +93/68 EEC.

Specifications

Voltage: 220-240V/50Hz
Energy consumption : 16W
Energy consumption (Standby): less than 4W (clock display switched off)
Rewind time: approx. 100 seconds (cassette E-180)

Dimensions in cm (B/H/T): 38.0/9.3/26.0
Number of video heads : 4
Number of video heads (HIFI): 2
Recording/playback time: **4 hours (SP)** (cassette E-240)
8 hours (LP) (cassette E-240)

Supplied accessories

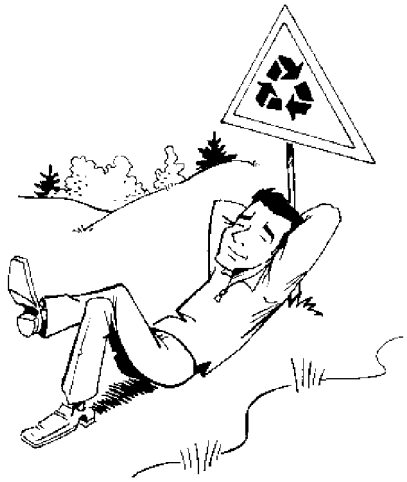
Operating instructions
Remote control and batteries
Antenna cable
Power cable

Important notes regarding operation

Danger: High voltage!
Do not remove the top cover as there is a risk of an electrical shock!

The video recorder does not contain any components that can be repaired by the customer. Please leave all maintenance work for qualified personnel.

As soon as the video recorder is connected to the power supply, there are some components that are in constant operation. To switch off the video recorder completely you must disconnect it from the power supply.



These operating instructions have been printed on non-polluting paper.

Deposit old batteries at the appropriate collection points.

Please make use of the facilities available in your country for disposing of the packaging of the video recorder in a way that helps to protect the environment.

This electronic device contains many materials that can be recycled. Please enquire about the possibilities for recycling your old device.

Make sure that air can circulate freely through the ventilation slots on the video recorder. Do not place the device on an unsteady base.

Make sure that no objects or liquids enter the video recorder. Do not place vases or the like on the video recorder. If liquid is spilt into it, immediately disconnect the video recorder from the power supply and call After-sales Service for advice.

Do not place any combustible objects on the device (candles, etc.).

Make sure that children do not place any foreign objects within the openings or ventilation slots.

Special functions of your new video recorder

Your PHILIPS video recorder is not just for recording and playing back VHS cassettes. It also has a whole range of special functions which will make the day-to-day use of your new video recorder much easier.

DIGITAL STUDIO PICTURE CONTROL

Philips has developed a system which produces the best possible playback quality. For old and often-used video cassettes, this system reduces interference. For new or high quality cassettes, it emphasises the details.

Plug and Play

When you connect your video recorder to your television and plug it into the wall socket, you will be welcomed with a screen menu. All you have to do is follow the instructions in the 'intelligent help line' for the next step. Enjoy the automatic TV channel search/save function and the automatic time setting.

Record Link

Recordings made on your video recorder can be controlled by an external satellite receiver.

TURBO DRIVE

The precision tape drive from Philips provides short rewind times and automatic tape length recognition.

SHOWVIEW®

Simple programming system for video recorders. Makes programming as easy as making a telephone call. Simply enter the number code associated with your television programme. This number is located in your favourite television listings magazine.

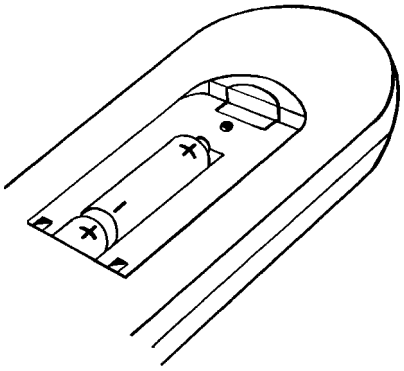
ShowView is a registered trademark of Gemstar Development Corporation. The ShowView system is manufactured under licence from Gemstar Development Corporation.

So that you can identify your machine for service questions or in the event of theft, enter the serial number here. The serial number (PROD.NO.) is printed on the type plate fixed at the back of the device.

MODEL NO.	VR670B-VR670W/58	PHILIPS
PROD. NO.	.....	

2 Connecting the video recorder

Preparing the remote control for operation



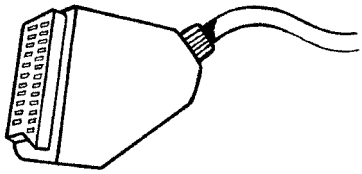
The remote control and its batteries are packed separately in the original video recorder packaging. You must install the batteries in the remote control before use - described in the following section.

1. Take the remote control and the enclosed batteries (2 batteries).
2. Open the remote control's battery compartment and place the batteries in it as shown in the picture and close the battery compartment.

The remote control is now ready to use. Its range is approximately 5 meters.

Connecting your video recorder to the TV set

The necessary cable connections must be made before you can record or playback TV programmes using your video recorder.
We recommend that you use a scart cable to connect your TV set and video recorder.



What is a scart cable?

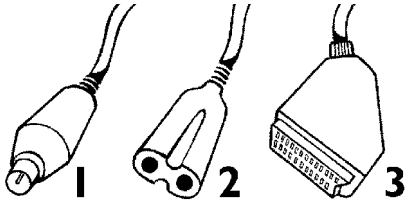
The scart or Euro AV cable serves as the universal connector for picture, sound and control signals. With this type of connection, there is practically no loss of quality during the picture or sound transfer.

When you install your video recorder for the first time, select one of the following options:

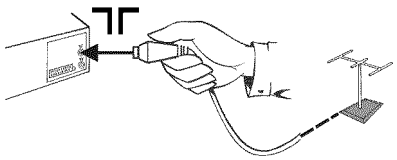
'Connecting with a scart cable'
If your TV set has a scart socket and you are using a scart cable.

'Connecting without a scart cable'
If you do **not** wish to use a scart cable.

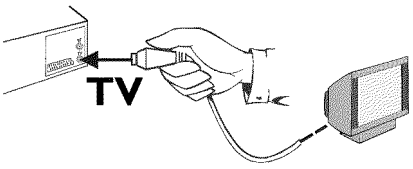
Connecting with a scart cable



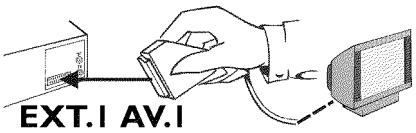
Have the following cables ready:
an aerial cable (1, supplied), a mains cable (2, supplied), a scart cable (3).



1. Remove the aerial cable plug from your TV set. Insert it into the socket ⅂Γ at the back of the video recorder.



2. Insert one end of the supplied aerial cable into the socket **TV** at the back of the video recorder and the other end into the aerial input socket at the back of the TV set.



3. Plug one end of a scart cable into the scart socket **EXT.1 AV. 1** at the back of the video recorder and the other end into the suitable scart socket on your TV set reserved for the video recorder operation (see your TV's operating instructions).

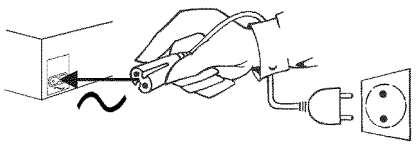
My TV set has several scart sockets. Which one should I use?

Select that scart socket which is suited for the video output as well as for the video input.

My TV offers me a selection menu for the scart socket.

Select 'TV' as a connection source of this scart socket.

4. Switch on the TV set.



5. Insert one end of the supplied mains cable into the mains socket ~ at the back of the video recorder and the other end into the wall socket.

6. If the connection was properly made and your TV was **automatically switched** to the programme number for the scart socket, e.g. 'EXT', '0', 'AV', you will see the following picture:

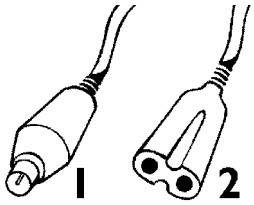
× My screen is empty

✓ Many TV sets are switched to the programme number for the scart socket by way of a control signal sent through the scart cable.

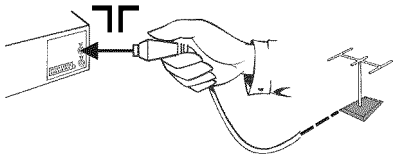
✓ If the TV set does not automatically switch to the scart socket programme number, manually change to the corresponding programme number on your TV set (see your TV's operating instructions).

Then, read the paragraph 'Initial installation' in the chapter 'Installing your video recorder'.

Connecting without a scart cable

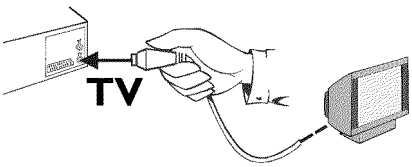


Have the following cables ready:
an aerial cable (1, supplied), a mains cable (2, supplied).

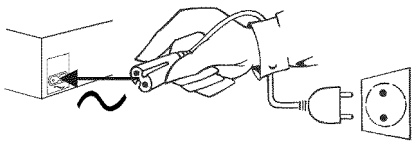


❶ Switch off your TV set.

❷ Remove the aerial cable plug from the aerial input socket of the TV set. Insert it into the socket ⅂⌐ at the back of the video recorder.



❸ Insert one end of the supplied aerial cable into the socket **TV** at the back of the video recorder and the other end into the aerial input socket at the back of the TV set.



❹ Insert one end of the supplied mains cable into the mains socket ∼ at the back of the video recorder and the other end into the wall socket.

❺ Switch on your TV set and select the programme number used for video playback on your TV set (see your TV's operating instructions).

Which programme number is used for video recorder operation?

To ensure the stability of the television picture during cassette playback (prevention of waves or streaks), special programme numbers have been set aside on the TV for the use of video recorders. This is usually the highest possible programme number, e.g. '12', '16', '99' or even programme number '0'. For more information, please see your TV's operating instructions.

6 Select this programme number and manually start the TV's channel search as if you wanted to save a new TV channel until the 'test image' appears.

×I do not see a 'test screen'

✓ Check the cable connections.

✓ The video recorder 'transmits' on the 591MHz frequency (channel 36) Repeat the channel search on your TV set.

7 Save this programme number setting on your TV set for video recorder operation.

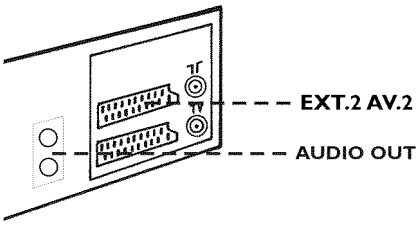
Programme number for video recorder operation

You have now saved a programme number for use by your video recorder as you would a regular TV channel. This programme number must now be used in future for video recorder playback ('video recorder' TV channel).

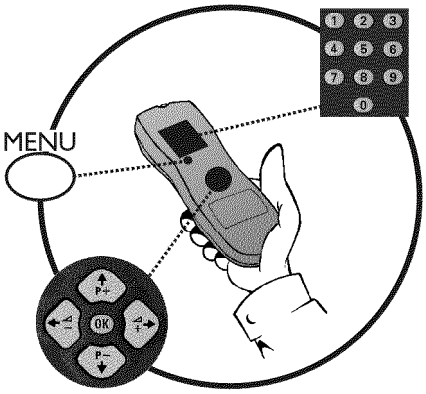
You can find more details in chapter 'Initial Installation'.

Connecting additional devices

You can connect additional devices such as decoders, satellite receivers, camcorders, etc. to the socket **EXT.2 AV. 2** .
Two audio sockets **AUDIO OUT L R** are located on the back of the video recorder (audio signal output left/right). These can be used to connect stereo systems.



3 Installing your video recording



Initial installation

This chapter shows you how to start the initial installation. The video recorder automatically seeks out and stores all available TV channels.

'Aim' correctly

In the following sections, you require the remote control for the first time. When using, always aim the front of the remote control at the video recorder and not at the TV set.

Connecting additional devices

After you have connected additional devices (satellite receiver, etc.) through the aerial cable, switch them on. The automatic channel search will recognise them and save them.

1. Confirm the image on the TV screen by pressing the **OK** button on the remote control.

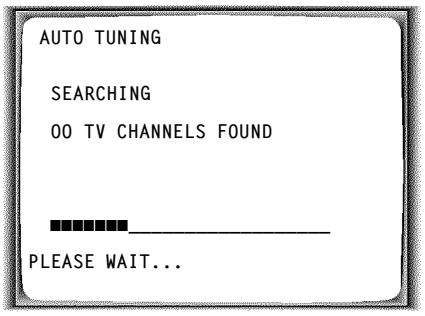
2. Select the desired language for the on-screen menu by pressing **P↓−** or **P↑+** .

What is an on-screen menu?

The multi-language on-screen menu takes the mystery out of using your new video recorder. All settings and/or functions are displayed on your TV screen in the corresponding language.

3. Confirm with **OK** .

4. Select the country of your residence with **P↓−** or **P↑+** .
If your country does not appear, select 'OTHERS'.
Confirm with **OK** .
The automatic TV channel search starts. This picture will appear on the screen:

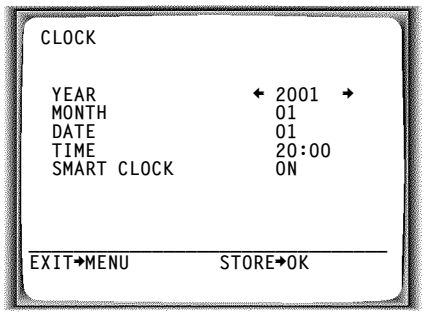


× The video recorder does not find any TV channels during the search

✓ Select channel 1 on the TV set. Can you see the saved TV channel on the TV set?
If not, check the cable connection of the aerial (aerial socket), video recorder, TV set.

✓ Please have patience.
The video recorder searches the entire frequency range in order to find and save the largest possible number of TV channels. It is possible that the TV channels in your country are broadcast in a higher frequency range. As soon as this range is reached during the search, the video recorder will find the TV channels.

5. When the automatic TV channel search is complete, 'STORED' will briefly appear on the TV screen.
'YEAR', 'MONTH', 'DATE', 'TIME' will appear on the TV screen.



6. Check the year in line 'YEAR'. If required, please change the year with the number buttons **0-9** on the remote control.

7. Select the next line with **P↑+** or **P↓−** .

8. Check if the displayed settings for 'MONTH', 'DATE' and 'TIME' are correct.

9. When all information is correct, save by pressing **OK** . 'STORED' will briefly flash in the video recorder display.

The initial installation is now complete.

Satellite receiver

If you are connecting a satellite receiver, please read the section 'Using the satellite receiver'.

Decoder

If you are connecting a decoder, you must install it as described in the next section.

× Sound disruptions can occur on several TV channels

✓ If sound disruptions should occur for several saved TV channels or there is no sound at all, it is possible that the incorrect TV system was saved for this TV channel. In the chapter 'Manual TV channel search' you will find the information on how to change the TV system.

Decoder allocation

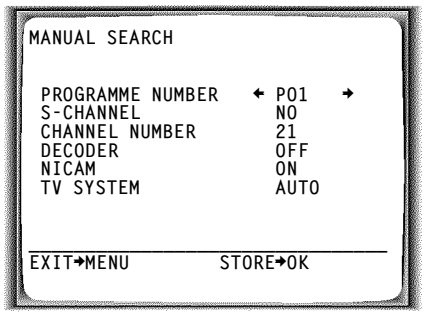
Some TV channels transmit encoded TV signals which can only be viewed with a commercially purchased or hired decoder without disturbances. You can connect such a decoder (descrambler) to this video recorder. The following function will automatically activate the connected decoder for the desired TV channel.

1. Switch the TV on. If applicable, select the programme number for the video recorder operation.

2. Use the buttons **P↑+** , **P↓−** on the video recorder or the number buttons **0-9** on the remote control to select the TV channel which you would like to allocate the decoder to.

3. Press the button **MENU** on the remote control. The main menu will appear.

4. Use the buttons **P↑+** or **P↓−** to select the line 'MANUAL SEARCH' and confirm with **OK** .



5. Use the buttons **P↓−** or **P↑+** to select the line 'DECODER'.

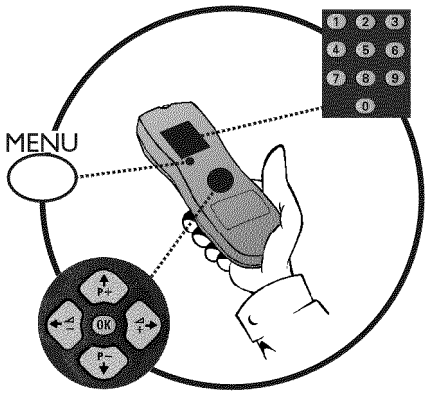
6. Use the buttons **◄◿−** or **◿+►** to select 'ON' (Decoder switched on).

How can I switch off the decoder?
Use the button **◿+►** on the screen to select 'OFF' (Decoder switched off).

7. Confirm with **OK** .

8. End with the button **MENU** .

The decoder has now been allocated to this TV channel.
If this TV channel is chosen, the symbol 'DEC' will appear in the video recorder display.



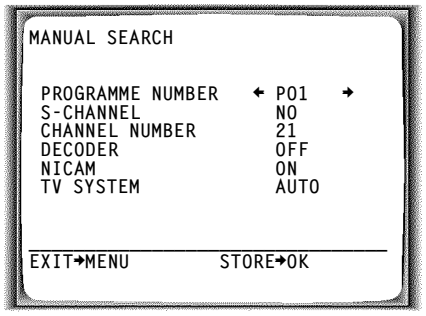
Manual TV channel search

In some cases it could occur that all of the TV channels were not found and saved during the initial installation. In this case, the missing or coded TV channels must be searched for and stored manually.

1. Switch on the TV set. If required, select the programme number for the video recorder.

2. Press **MENU** on the remote control.
The main menu will appear.

3. Select line 'MANUAL SEARCH' using **P↓−** or **P↑+** and confirm with **OK** .



4. Select line 'PROGRAMME NUMBER' using **P↓−** or **P↑+** .

5. Using **◄◿−** or **◿+►** , select the desired programme number that you want to use for the TV channel, e.g. 'P01'.

6. In line 'S-CHANNEL', select the desired display using **◿+►** .

What is hidden behind the settings?

'NO': Display/Entry of channels
'YES': Display/Entry of special channels

What is a special channel?

TV channels are transmitted in certain pre-defined frequency ranges. These ranges are divided into channels. A specific frequency/channel is assigned to each TV station. Certain frequency ranges are specified as special channels (hyperband channels).

7 In line 'CHANNEL NUMBER', enter the channel of the desired TV station using the number buttons **0-9** .

× I don't know the channels for my TV stations

✓ In this case, press ◿+→ in line 'CHANNEL NUMBER' to start the automatic channel search. A changing channel number will appear on the TV screen.
Continue the automatic search until you have found the desired TV channel.

What is NICAM?

NICAM is a digital sound transmission system. Using NICAM, you can transmit either 1 stereo channel or 2 separate mono channels. However, if you experience poor reception resulting in sound disruptions, you can turn off NICAM.
In line 'NICAM', select 'OFF' using ←◿− or ◿+→ .

How can I change the TV transmission system of the TV channel?

In line 'TV SYSTEM', select the corresponding TV system using ←◿− or ◿+→ until the picture/sound disruptions are minimised.

8 Save the TV channel with **OK** . 'STORED' will briefly appear on the TV screen.

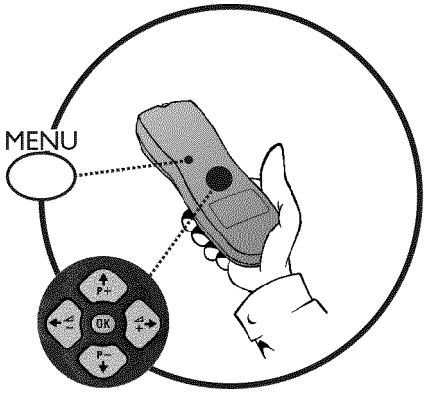
9 To search for other TV channels, begin again at step 3 .

10 To end, press **MENU** .

Using the satellite receiver

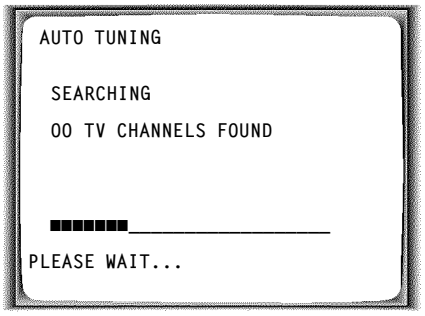
TV channels from a satellite receiver (connected to the scart socket **EXT.2 AV. 2**) are received on the video recorder on programme number 'E2'.
To do this, select programme number 'E1' with **0** on the remote control and then select programme number 'E2' with **P↓−** .
You should select the TV channels to be received by the satellite receiver directly on the receiver itself.

Automatic TV channel search



During installation, all available TV channels are searched for and saved. If the channel assignments of your cable or satellite TV provider change or if you are reinstalling the video recorder, e.g. after moving house, you can start this procedure again. This will replace the TV channels already saved with the new ones.

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press the **MENU** button on the remote control. The main menu will appear.
3. Select line 'AUTO TUNING' using **P↓−** or **P↑+** .
4. Press **OK** .
5. Select the country of your residence with **P↑+** or **P↓−** .
   If your country doesn't appear, select 'OTHERS'.
6. Press **OK** .



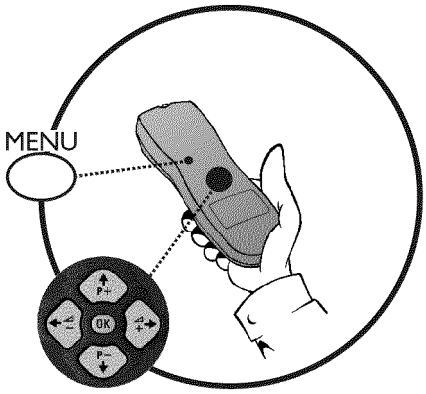
7. The automatic TV channel search starts. This allows the video recorder to save all available TV channels. This procedure may take several minutes.
8. When the TV channel search is complete, 'STORED' will briefly appear on the TV screen.
9. To end, press **MENU** .

You can read about how to search for a TV channel manually in the section 'Manual TV channel search'.

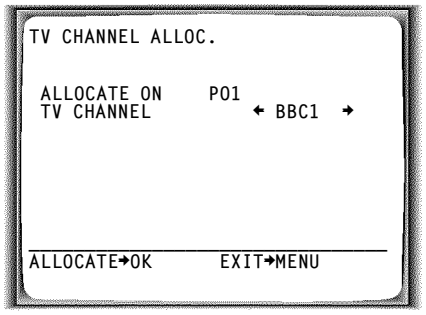
Monitor function

You can switch back and forth between the TV picture and video recorder picture with **MONITOR** . But this only works when you use a scart cable to connect the video recorder to your TV set and your TV set responds to this switch-over.

Sorting and clearing TV channels manually



After you have performed the automatic channel search you may not agree with the sequence in which the individual TV channels have been allocated to the programme positions (programme numbers) of the video recorder. You can use this function to individually sort the TV channels already saved or to delete unwanted TV channels or those with poor reception.



1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press **MENU** on the remote control. The main menu will appear.
3. Select line 'TV CHANNEL ALLOC.' using **P↓−** or **P↑+** .
4. Confirm with **OK** .
5. Using ←◿− or ◿+→ , select the saved TV channel that you want to assign to the programme number 'P01'.
6. Confirm with **OK** . The following message will briefly appear on the TV screen: 'ALLOCATED ON P01'.
7. Then the sorting for the next highest programme number will appear on the screen, e.g. 'ALLOCATE ON P02'.
8. Using ←◿− or ◿+→ , select the saved TV channel that you want to assign to this programme number, e.g. 'P02'.

Deleting TV channels

Using **CLEAR (CL)** you can delete unwanted TV channels or those with poor reception.

❾ Confirm with **OK**. The following message will briefly appear on the TV screen: 'STORED'.

× The main menu will appear on the screen

✓ After you have confirmed the last channel that can be sorted, you will automatically return to the main menu since no more TV channels can be assigned.

❿ To assign other TV channels to a programme number, repeat steps ❼ to ❾.

⓫ Confirm the assignment of the TV channel with **MENU**.

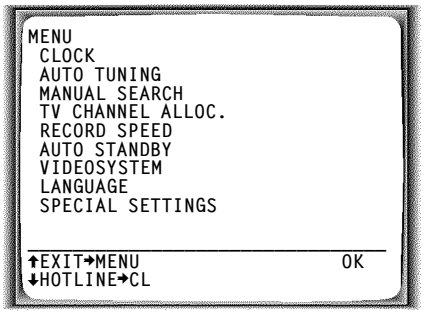
⓬ To exit the main menu, press **MENU**.

Setting on-screen menu language

You have the option of setting one of the displayed languages for the on-screen menu (OSD). However, the video recorder display will only display English text regardless of this setting.

❶ Switch on the TV set. If required, select the programme number for the video recorder.

❷ Press **MENU** on the remote control. The main menu will appear.

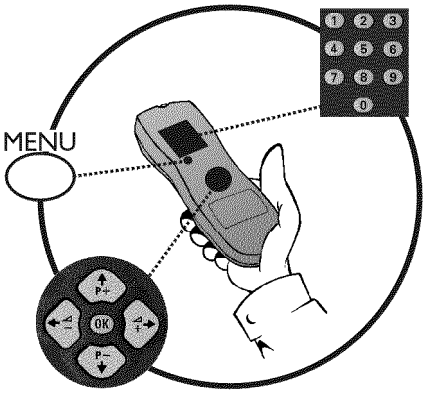


❸ Select line 'LANGUAGE' and confirm with **OK**.

❹ Select the desired language with **P↓−** or **P↑+** and confirm with **OK**.
'STORED' will appear briefly on the screen.

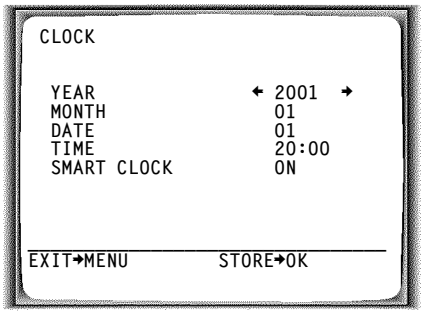
❺ To end, press **MENU**.

Setting the time and date



If the display shows an incorrect time or '--:--', the time and date must be reset manually.
If a TV channel which transmits TXT/PDC (teletext/PDC) is stored under programme number 'P01', time/date will automatically be taken from the TXT/PDC information. (SMART CLOCK)

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press **MENU** on the remote control. The main menu will appear.
3. Select line 'CLOCK' using **P↓−** or **P↑+** and confirm with **OK**.



4. Check the year in line 'YEAR'. If required, please change the year with the number buttons **0-9** on the remote control.
5. Select the next line with **P↑+** or **P↓−**.
6. Check 'MONTH', 'DATE' and 'TIME' in the same way.

× Time/date is displayed incorrectly despite manual setting

✓ With Smart Clock, time/date is transferred from the TV channel saved on 'P01' and automatically corrected.
Switch off Smart Clock. In line 'SMART CLOCK', select 'OFF' using ◀◿− or ◿+▶.
You can switch on 'SMART CLOCK' again when you select 'ON'.

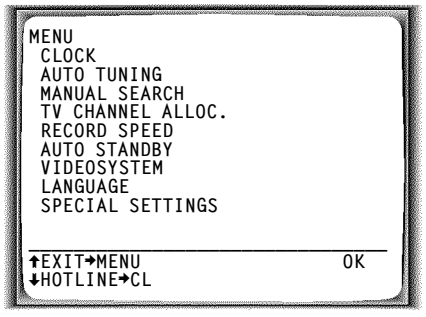
7. Check the displayed settings and confirm with **OK**.
'STORED' will appear briefly on the screen.
8. To end, press **MENU**.

4 Important notes for operation

Switching on	You can switch on the video recorder with the **STANDBY/ON** ⏻ button, the number buttons **0-9** or by putting in a cassette.
Automatic switch-off	If the video recorder is not used for several minutes, it switches itself off automatically. This function can be deactivated (e.g. if you want to use the video recorder as a TV receiver). For more information, please read the section 'Automatic switch-off' in chapter 'Additional functions'.
Time in the display	If you have switched the video recorder off with **STANDBY/ON** ⏻ , the time will show in the display, e.g. '18:00'. If the clock has not been set, '--:--' will appear. When the video recorder is switched off and the time isn't shown in the video recorder display, the clock display may be switched off. You will find more information in the chapter 'Additional functions' section 'Switch off the clock display'.
Energy consumption	The video recorder should always be connected to the mains so as not to affect the use of the TV or programmed recordings. Your video recorder uses less than 4W (with clock display switched off).
Power outage/no power	Channel information remains saved for up to 1 year, the time and timer information is saved for up to 3 hours.
Emergency exit	The video recorder and the remote control have the option of an 'Emergency exit'. You can use the **STANDBY/ON** ⏻ button to interrupt any function or step during use. You can operate your device without worry. There is no risk whatsoever of damaging the video recorder by performing user steps incorrectly.

Navigation in the screen menu

You can check/change many functions and settings of your video recorder via the screen menu. The individual functions are selected as follows:



Call up the menu: with **MENU** .

To select: with **P↓−** or **P↑+** .

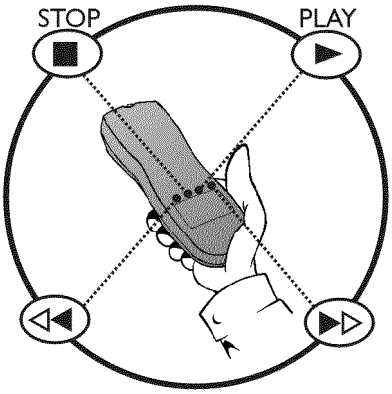
To enter or change your selection: with the number buttons **0-9** or with **←◿−** or **◿+→** .

To save or confirm: with **OK** .

To cancel: with **STANDBY/ON** ⏻ .

To end: with **MENU** .

5 Playback

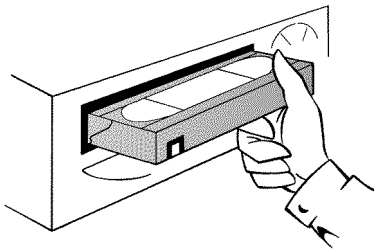


Playing cassettes

You can use this video recorder to play back recorded VHS video cassettes. You can operate the video recorder using the remote control or the buttons on the front of the video recorder.

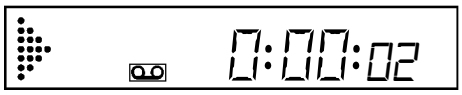
What does VHS mean?

'Video Home System' (VHS) has become the world-wide standard for the playback and recording of amateur video cassettes. This popular standard continues to be improved. Super VHS (S-VHS) provides a sharper picture and less noise. Digital VHS (D-VHS) works with digital picture and sound signals. Your video recorder can only record and play standard VHS cassettes.



1 Put a cassette into the cassette slot.
The cassette is inserted automatically. ' ' will appear on the display.

2 Press the Play button **PLAY ►** to view the tape.
This will, for example, appear in the display:



× Picture/ sound quality is poor

✓ When playing rental videos or older, poorer quality cassettes, it may not be possible to completely filter out picture and sound interference. This is not a fault in your machine.
Read the chapter 'Eliminating picture interference'.

✓ During playback the automatic TV system will switch-over automatically. If picture/sound interference occurs, attempt to fix the problem by manually switching the TV system. In that case, turn to chapter 'Additional functions' section 'Switching the video (color) system'.

3 To stop the playback, press **STOP ■** on the remote control or **STOP/EJECT ■/▲** on the video recorder.

4 To eject the cassette, press **STOP/EJECT ■/▲** on the video recorder when the video recorder stops the playback (STOP).

Automatic switch-off of special functions

Many functions (e.g. pause, still picture, search) switch themselves off automatically after a short time in order to protect the cassette and to save energy.

Do I need to change the playback speed when playing back LP recordings?

For playback, the correct recording speed 'SP' will automatically be selected. For more information, please read the section 'Selecting the recording speed (SP/LP)' in the chapter 'Manual recording'.

Playing back NTSC cassettes

Cassettes that have been recorded in the NTSC standard (for example, American cassettes) can be played back using this video recorder. However, this only works on PAL-television sets which are suitable for a picture frequency of 60Hz.
When you play an NTSC cassette '60HZ' will appear on the display.
Some special features (for example, still picture) are not possible while you are playing an NTSC cassette.

Displaying current tape position

The display shows the tape position in hours, minutes and seconds. In addition, by pressing **OK** you can show the present tape position on the TV screen.
The following information is displayed on the screen:
e.g.: 0:02:45 Shows the tape position in hours, minutes and seconds.
Moving/blinking arrow: This indicates the current tape position. The arrow moves in a line from left (tape start) to right (tape end).
'REMAIN 0:06': will show the actual amount of playing/recording time left on the tape in hours and minutes.
When you play an NTSC cassette, the video recorder will not show 'REMAIN 0:06'.

How can I set the counter to '0:00:00'?

You can set the counter to '0:00:00' using **CLEAR (CL)**.
When you put a cassette in the machine, the counter will automatically reset to 0:00:00'.

× The counter does not move

✓ This occurs when there are no recordings on a portion of a tape. Therefore, the video recorder cannot receive any information from the tape. This is not a fault in your machine.

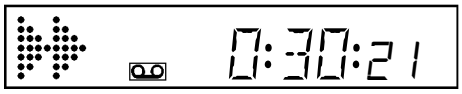
× The display/the screen shows '-0:01:20'

✓ If you rewind a cassette from the tape position '0:00:00', the counter will show for instance, '-0:01:20' (the cassette will be rewound to 1 minute and 20 seconds before '0:00:00').

× '-:--' is displayed in the 'REMAIN' counter

✓ This counter will automatically recognise the length of the tape. In addition, when you put in a cassette the video recorder must first calculate the time played. Therefore, '-:--' appears first and only after the tape has been running for a few seconds will the correct playing time be shown.

Searching for a tape position with picture (scanning)

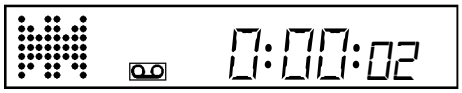


1. While a cassette is playing, press ◁◀ (reverse) or ▶▷ (forward) one or more times. This will, for example, appear in the display:
2. To stop at a certain place on the tape, press **PLAY ►** .

Decreased picture quality

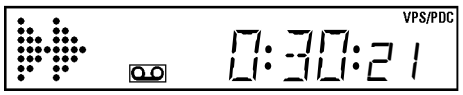
Scanning interferes with the picture quality. The sound is switched off. This is not a fault in your machine.

Still picture / slow motion



1. During playback, press **STILL ▶|◀** to stop the tape and display a still picture. This will, for example, appear in the display:
2. Each time you press **STILL ▶|◀** , the picture will advance one frame.
3. When you hold down the **STILL ▶|◀** button, the tape will be played in slow motion.
4. When you press ▶▷ several times, you have a choice of several playback speeds for slow motion.
5. To continue playback, press **PLAY ►** .

Searching for tape position without picture (forward wind and rewind)



1. Stop the tape with **STOP ■** .
2. Press ◁◀ (reverse) or ▶▷ (forward). This will, for example, appear in the display:
3. To stop at a certain place on the tape, press **STOP ■** .

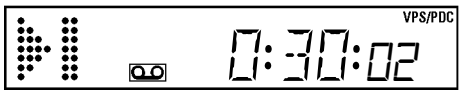
Instant View

With this function you can switch to picture search during wind and rewind.

1. If you hold ◁◀ (rewind) or ▶▷ (wind) during wind or rewind, you will switch to picture search.
2. As soon as you release the button, the video recorder will automatically switch back to rewind or wind.

Automatic search for a tape position (index search)

Every time a tape is recorded an index marking is written on the tape. This marking can be compared with a bookmark. These marked positions can be found again quickly and easily later by pressing a button.



1. To search for the previous marking, press **INDEX ▶I** and then ◁◀ .
2. For the next marking, press **INDEX ▶I** and then ▶▷ . This will, for example, appear in the display for the next marking.
3. As soon as the video recorder finds this marking, it automatically switches to playback.

Automatic search for a blank space on the tape

You can search for space on the tape (at least 1 minute of blank tape) for a new recording, for example, after an existing recording on the tape.

1. Press **INDEX ▶I** . Then press **STOP ■** . This will, for example, appear in the display:

2. As soon as the video recorder finds the corresponding tape position, it automatically switches to pause.

× The cassette is ejected

✓ The video recorder was unable to find any blank space on the tape inserted.

6 Eliminating picture interference

Optimising tracking

This video recorder has an automatic tracking function. In order for the video heads to optimally read the video track of the newly inserted video cassette, the tape speed is slightly corrected automatically.
In some cases however, interference will still occur.
The following section will explain how to manually adjust the tracking settings.

1. While a cassette is playing, hold **P↑+** until '*TRAC*' (TRACking) appears in the display.
2. Hold down the buttons **P↑+** or **P↓−** until the playback quality is at its best.
3. Wait a few seconds, until '*TRAC*' disappears from the display.

These selected picture settings will not change until you eject the cassette.

Optimising still picture

If the still picture vibrates vertically, you can improve the still picture as follows:

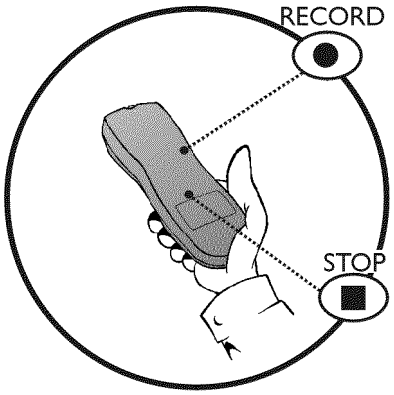
1. During still picture, hold **P↑+** or **P↓−** until the picture quality is at its best.
   '*JITT*' will appear in the display.
2. When you release the button, '*JITT*' will disappear.

The video recorder will store these settings automatically.

×I cannot reach optimal quality for the still picture

✓ Interference which cannot be alleviated by this function can occur in cassettes of poor quality or camcorder cassettes .

7 Manual recording



General information

Use 'Manual Recording' to make a spontaneous recording (for example, a programme currently being shown).

If you want to start and stop a recording manually, read the section **'Recording without automatic switch-off'**.

If you want to start a recording manually but have it stopped automatically, read the section **'Recording with automatic switch-off'**. (e.g. not to record to the end of the tape)

Read the section **'Automatic recording from a satellite receiver'**, if you want a recording to be controlled automatically by a satellite receiver.

Recording without automatic switch-off

1. Insert a cassette.

2. Use **P↑+** or **P↓−** to select the programme number you want to record, for example, 'P01'. This will appear on the display:

Station name

If a TV station transmits a station name, it will be shown in the display.

Programme numbers 'E 1' 'EE'

This programme number is provided for recording from external sources (via the scart socket **EXT.1 AV. 1**, **EXT.2 AV. 2**).

3. To start recording, press **RECORD ●** on the remote control or **RECORD ●** on the video recorder. This will, for example, appear in the display:

Displaying tape position

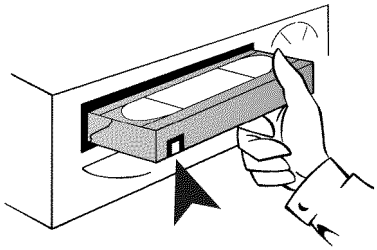
Using **OK** you can show the tape position in the display.

4. Stop recording with **STOP ■**.

Recording with automatic switch-off (OTR One-Touch-Recording)

1. Insert a cassette.
2. Use **P↑+** or **P↓−** to select the programme number you want to record.
3. Press **RECORD ●** on the remote control.
4. Each time you press **RECORD ●** you will add 30 minutes to the recording time.

How can I clear the recording time just setted?
To delete an entry, press **CLEAR (CL)** while the display shows the recording time.



Preventing accidental erasing of cassettes

All cassettes (except for rental and store cassettes) have a security tab on the back of the cassette (see arrow).
To prevent recording over important recordings (erasing), you can remove this security tab or slide it to the left.
If you later decide to record on a protected cassette, simply cover the hole with adhesive tape or slide the tab to the right.

Lining up recordings (assemble cut)

When you add a further recording to a cassette, which already has a recording on it, a short blank (flicker) can appear between the old and the new recording or the picture itself can flicker. To help reduce these from occurring, proceed as follows:

1. Find the tape position of the old recording where you want to insert the new recording.
2. Look at the last minute of the old recording (playback).
3. Press **STOP ■** on the remote control at the tape position where the new recording is to go. **II** ' will appear on the display.
4. Now start recording as usual by pressing **RECORD ●** on the remote control.
5. Stop recording with **STOP ■** .

Selecting the recording speed (SP or LP)

You can reduce the recording speed by half. This makes it possible to record, for example, eight-hours instead of four-hours on an 'E240' (four-hour) cassette.
For playback, the correct recording speed will automatically be selected.

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press **MENU** on the remote control. The main menu will appear.
3. Select line 'RECORD SPEED' using **P↓−** or **P↑+** and confirm with **OK** .
4. Select the required recording speed with ←◿− or ◿+→ .

'SP'/'LP' AUTO'

'SP': **S**tandard**P**lay (normal recording speed) offers the usual first-class picture quality.

'LP': **L**ong**P**lay (half recording speed, double recording time). 8 hours can be recorded on a 4 hour cassette (E240) with a somewhat reduced picture quality.

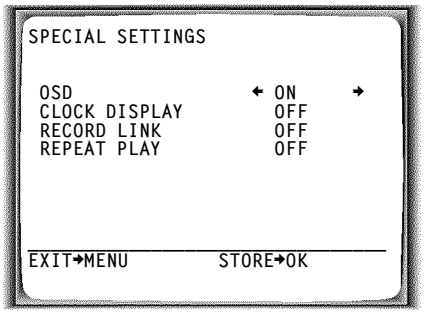
'AUTO': **AUTO**matic Long Play. If there is not enough space on the tape to record a programmed recording in standard speed, the recording will automatically be made in 'LP' (Longplay). Otherwise, the recording speed will be 'SP' (Standardplay).

5. Confirm with **OK** .
6. To end, press **MENU** .

Automatic controlled recording from a satellite receiver (RECORD LINK)

This function automatically starts recording on the switched-off video recorder when a video signal is recognised through the connected scart cable. If your satellite receiver has a programming function, the recording will start automatically (as long as the satellite receiver is switched on).

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press **MENU** on the remote control. The main menu will appear.
3. Select line 'SPECIAL SETTINGS' using **P ↓ −** or **P ↑ +** and confirm with **OK** .



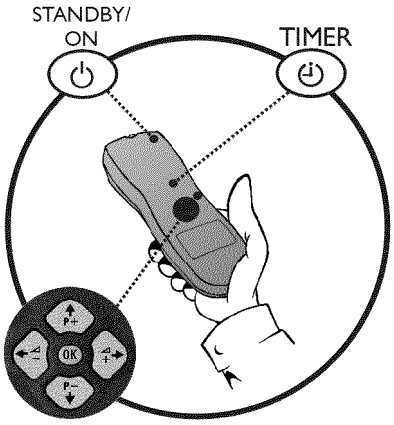
4. Select line 'RECORD LINK' using **P ↓ −** or **P ↑ +** .
5. Select function 'ON' with **← ◿ −** or **◿ + →** .

Switching off 'Record Link'
To switch off the function, select 'OFF'.

6. Confirm with **OK** .
7. To end, press **MENU** .
8. Insert a cassette.
9. Use a scart cable to connect scart socket **EXT.2 AV. 2** on the video recorder to the corresponding scart socket on the satellite receiver.
10. Programme the satellite receiver with the required information (programme number of the TV channel, start time, end time).
If necessary, please see the operating instructions for your satellite receiver.
11. Switch off the video recorder with **STANDBY/ON** ⏻ .

The video recorder is now ready to record. The beginning and end of the recording is controlled via scart socket **EXT.2 AV. 2** .
When this function is switched on, ' 🔕 ' will appear on the video recorder display.

8 Programming a recording (TIMER)



General information

Use programming a recording (TIMER) to automatically start and stop a recording at a later date. The video recorder will switch to the right programme number and begin recording at the correct time.
With this video recorder, you can pre-programme up to six recordings within a period of one month.

To make a programmed recording, your video recorder needs to know:
* the date you want to make the recording
* the programme number of the TV channel
* the start and stop time of the recording
* VPS or PDC on or off

This information is saved in a 'TIMER block'.

What is 'VPS/PDC'?

'VPS' (Video Programming System)/ 'PDC' (Programme Delivery Control) are used to control the start and duration of TV channel recordings. If a TV programme starts earlier or ends later than was scheduled, the video recorder will then turn on and off and the correct time.

What do I need to know about 'VPS/PDC'?

Usually the start time is the **same** as the VPS or PDC time. But if your TV guide gives a VPS or PDC time which is different from the programme's start time, e.g. '20.15 (VPS/PDC 20.14)', you must enter the **VPS/PDC time** '20.14' **exact to the minute** as the start time.
If you want to programme a time that is different from the VPS or PDC time, you must switch off VPS or PDC.

Only one TV program of a TV channel can be controlled using 'VPS/PDC' at a time. If you want to record two or more TV programmes on a TV channel using 'VPS/PDC', you will need to programme these as two separate recordings.

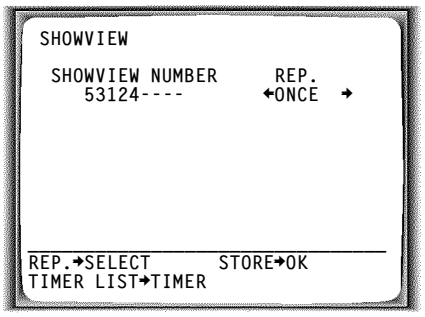
Programming a recording (with 'ShowView')

SHOWVIEW®

Thanks to this programming system, you no longer need to do tediously enter the date, programme number, start and end time. All the information needed for programming is contained in the ShowView-programming number. This 9-digit ShowView number is found in every TV listings magazine.

1. Switch on the TV set. If required, select the programme number for the video recorder.

2. Press **TIMER** ⏲ on the remote control.

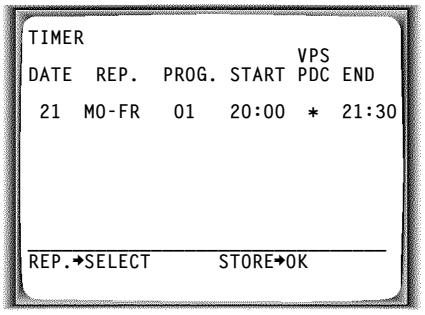


❸ Enter the entire ShowView number. This number is up to 9 digits long and can be found next to the start time of the TV programme in your TV listings magazine.
e.g. 5-312-4 or 5 312 4
Enter 53124 for the ShowView-number.
If you make a mistake, you can clear your instructions with **CLEAR (CL)** .

Selecting onetime/daily/weekly recordings

Using **SELECT** , select from the following options:
'ONCE': Recording once
'MO-FR': Repeated daily recordings (Monday to Friday)
'WEEK.': Repeated weekly recordings (every week on the same day)

❹ Confirm with **OK** .



× **The following message appears on the screen:** 'SELECT PROG. NR.'

✓ The programme number of the TV channel has not yet been assigned to the ShowView number. Using the number buttons **0-9** on the remote control, select the corresponding programme number (name) of the TV channel and confirm with **OK** .

× **The following message appears on the screen:** 'SHOWVIEW NUMBER NOT VALID'

✓ The entered ShowView number is incorrect. Correct your instructions or end with **MENU** .

✓ Check the time/date (see chapter 'Installing your video', section 'Setting the time and date').

× **The following message appears on the screen:** 'MO-FR PROGRAMMING NOT POSSIBLE FOR WEEKEND'

✓ A daily recording was entered for the wrong day. Daily programming can only be used for recordings to be made from Monday to Friday.

❺ The decoded data appears after confirmation. You can go back to change the data. Select the corresponding input field using ◿+→ or ←◿− . Change the data with **P↑+** , **P↓−** or with the number buttons **0-9** .

Switching on 'VPS/PDC' in the 'START' input field

Select the 'START' input field using ◿+→ . Using **SELECT** switch on 'VPS/PDC' ('*' lights up). If you press **SELECT** again, you will switch 'VPS/PDC' off ('*' goes out).

❻ When all informations are correctly, confirm with **OK** . The programming information is stored in a TIMER block.

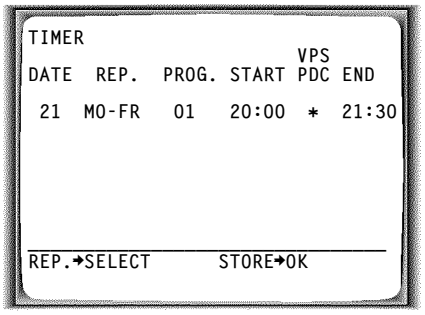
❼ Insert a cassette with an intact security tab (unprotected).

❽ Switch off with **STANDBY/ON** ⏻.
The programmed recording will only function when the video recorder is **switched off** with **STANDBY/ON** ⏻.
If any of the TIMER blocks are in use, '⏲' will light up on the video recorder display.

Problems and solutions for programmed recordings

PROBLEM	SOLUTION
The video recorder will not operate	✓While a programmed recording is being made, you cannot operate your video recorder manually. If you want to cancel the programmed recording, press **STANDBY/ON** ⏻.
'SWITCH TO STANDBY- TIMER RECORDING' **flashes on the TV screen**	✓The video recorder was switched on several minutes before the start of a programmed recording. Switch off the video recorder with **STANDBY/ON** ⏻. A programmed recording (timer) will only function if the video recorder is switched off.
Cassette is ejected during recording	✓The end of the tape was reached during recording.
Error message: 'NO CASSETTE' ⏲ **' will flash in the video recorder display**	✓No cassette was inserted. Insert a cassette and switch off the video recorder using **STANDBY/ON** ⏻.
Cassette was ejected as soon as the OK button was pressed	✓A cassette was inserted with the security tab removed. Undo the erase protection (chapter 'Manual Recording', section 'Preventing accidental erasing of cassettes') or insert a different cassette.
Error message: 'ALL TIMERS OCCUPIED'	✓If this error message appears after pressing **TIMER** ⏲, then all TIMER blocks are already programmed. No more recordings can be programmed. If you want to clear a programmed recording (TIMER block), select it with **P↑+** or **P↓−** and then press **CLEAR (CL)**.

Programming a recording (without ShowView)



1. Switch on the TV set. If required, select the programme number for the video recorder.

2. Press **TIMER** ⏲ on the remote control **twice** . A free TIMER block will be highlighted.

3. Press **TIMER** ⏲ . The information will appear on the screen.

4. With **TIMER** ⏲ , ◿+→ or ←◿− you can select 'DATE' (date), 'PROG.' (programme number), 'START' (start time) and 'END' (end time).
Enter or change your information with **P↑+** or **P↓−** , or with the number buttons **0-9** on the remote control.

Selecting onetime/daily/weekly recordings

In 'DATE' use **SELECT** to select from the following options:
'ONCE': Recording once
'MO-FR': Repeated daily recordings from Monday to Friday
'WEEK.': Repeated weekly recordings (every week on the same day)

Programme numbers of the 'E1' and 'E2' scart socket

You can also programme recordings from external sources via scart socket **EXT.1 AV. 1** ('E1') or **EXT.2 AV. 2** ('E2').

'Switching on 'VPS/PDC' in the 'START' input field

Select the 'START' input field using **TIMER** ⏲ . Using **SELECT** switch on 'VPS/PDC' ('*' lights up). If you press **SELECT** again, you will switch 'VPS/PDC' off ('*' goes out).

5. When all informations are correctly, confirm with **OK** . The programming information is stored in a TIMER block.

6. Insert a cassette with an intact security tab (unprotected).

❼ Switch off with **STANDBY/ON** ⏻.
The programmed recording will only function when the video recorder is **switched off** with **STANDBY/ON** ⏻.
If any of the TIMER blocks are in use, '⏲' will light up on the video recorder display.

Problem solving for programmed recordings

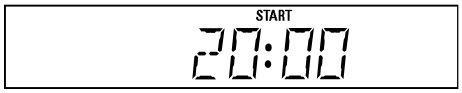
PROBLEM	SOLUTION
The video recorder does not react	✓While a programmed recording is being made, you cannot operate your video recorder manually. If you want to cancel the programmed recording, press **STANDBY/ON** ⏻.
'SWITCH TO STANDBY- TIMER RECORDING' **flashes on the TV screen**	✓The video recorder was switched on several minutes before the start of a programmed recording. Switch off the video recorder with **STANDBY/ON** ⏻. A programmed recording (timer) will only function if the video recorder is switched off.
A cassette was automatically ejected during recording	✓The end of the tape was reached during recording.
Error message: 'NO CASSETTE' '⏲' **will flash in the video recorder display**	✓No cassette was inserted. Insert a cassette and switch off the video recorder using **STANDBY/ON** ⏻.
The 'PROTECTED CASSETTE' **error message appears briefly on the screen then the cassette is ejected**	✓A cassette was inserted with the security tab removed. Undo the erase protection (chapter 'Manual Recording', section 'Preventing accidental erasing of cassettes') or insert a different cassette.
Error message: 'ALL TIMERS OCCUPIED'	✓If this error message appears after pressing **TIMER** ⏲, then all TIMER blocks are already programmed. No more recordings can be programmed. If you want to clear or check a programmed recording (TIMER block), select it with **P↑+** or **P↓−**.
The 'DATA ERROR' **message appears on the screen**	✓The data for the recording could not be transferred. Please check date, start time and end time of the programmed recording.

Programming a recording with 'TURBO TIMER'

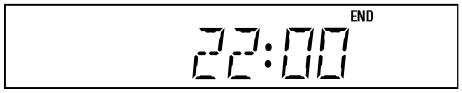
With this function, programming a recording that takes place within the next 24 hours, will be quick and easy. The following pre-set information will appear in the display when you programme a recording using 'TURBO TIMER'.
Programme number = the programme number currently selected (TV channel)
Start time = current time
End time = current time +2 hours

1. Press **TURBO TIMER** on the remote control.
The current set programme number will appear in the display, for instance, 'PROG. 01'. If required, you can change this using **P↑+** or **P↓−** .

× **'CLK' will flash in the video recorder display**
✓ This display means that the video recorder clock is not set correctly. Please read the section 'Setting the time and date' in chapter 'Installing your video recorder'



2. Press **TURBO TIMER** .
The current time (= start time) will appear in the display, for instance, 'START 20:00'. If required, you can change this using **P↑+** or **P↓−** .



3. Press **TURBO TIMER** .
The end time will appear in the display, for instance, 'END 22:00'. 'END 22:00'. If required, you can change this using **P↑+** or **P↓−** .

4. Press **TURBO TIMER** .
'OK' will briefly appear in the video recorder display. Programming is now complete.

5. Insert a cassette with an intact security tab (unprotected).

6. Switch off with **STANDBY/ON** ⏻ .
The programmed recording will only function when the video recorder is **switched off** with **STANDBY/ON** ⏻ .
If any of the TIMER blocks are in use, ' ⏲ ' will light up on the video recorder display.

Problems and solutions for programmed recordings

PROBLEM	SOLUTION
The video recorder does not react	✓While a programmed recording is being made, you cannot operate your video recorder manually. If you want to cancel the programmed recording, press **STANDBY/ON** ⏻ .
' ⏲ ' will flash in the video recorder display	✓The video recorder was switched on several minutes before the start of a programmed recording. Switch off the video recorder with **STANDBY/ON** ⏻ . A programmed recording (timer) will only function if the video recorder is switched off. ✓No cassette was inserted. Insert a cassette and switch off the video recorder using **STANDBY/ON** ⏻ .
Cassette is ejected during recording	✓The end of the tape was reached during recording.
The 'PROT' error message appears briefly in the display then the cassette is ejected	✓A cassette was inserted with the security tab removed. Undo the erase protection (chapter 'Manual Recording', section 'Preventing accidental erasing of cassettes') or insert a different cassette.
Error message: 'FULL'	✓If this error message appears after pressing **TIMER** ⏲ , then all TIMER blocks are already programmed. No more recordings can be programmed. If you want to clear or check a programmed recording (TIMER block), select it with **P↑+** or **P↓−** .

How to check, change or delete a programmed recording (TIMER)

1. Switch on the TV set. If required, select the programme number for the video recorder.

2. Press **TIMER** ⏲ on the remote control **twice** .

3. Select the programmed recording (TIMER) you want to check, change or delete with **P ↓ −** or **P ↑ +** .

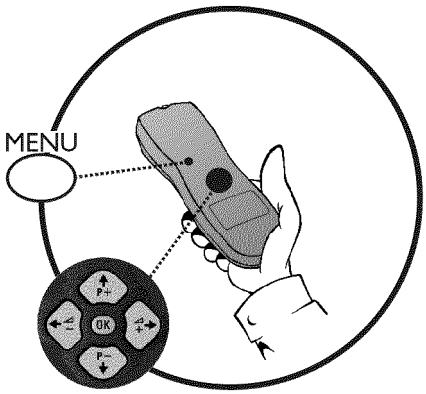
Delete programmed recording
Press **CLEAR (CL)** .
'--' appears rather than the displayed values
To end, press **MENU** .

4. Press **TIMER** ⏲ .
Select the input field with **← ◿ −** or **◿ + →** .
If required, change the information with **P ↑ +** , **P ↓ −** or the number buttons **0-9** .

5. Confirm with **OK** .

6. Switch off with **STANDBY/ON** ⏻ .

9 Other functions

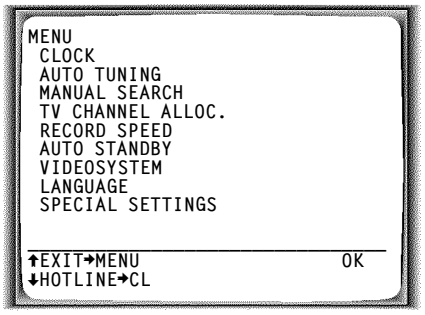


Changing the video (colour) system

If you playback recordings made on other video recorders or you want to record from external sources (via the scart socket), the automatic video (colour) system switch-over may lead to colour distortion.
You can switch off the automatic TV system switch-over as follows.

Video (colour) systems

Other countries, other video (colour) systems:
In central Europe transmissions are broadcast in the PAL system (Phase Alternation Line) standard. France uses SECAM (Séquentiel à mémoire). In some countries (USA and Japan), TV viewers receive their programmes as an NTSC signal (National Television System Committee).

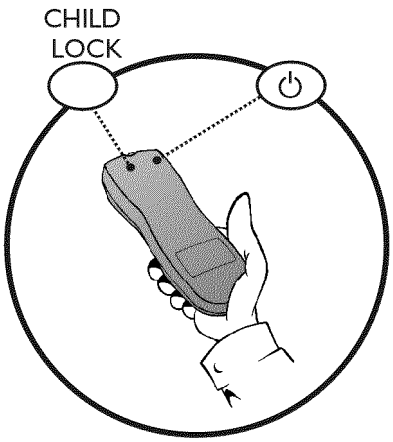


1. Press **MENU** on the remote control **before you start recording** or **during playback**. The main menu will appear.
2. Select line 'VIDEOSYSTEM' using **P↓−** or **P↑+** and confirm with **OK**.
3. Select the TV (colour) system with the least disruptions using **◿+→** or **←◿−**.
   If colour interference still occurs, you can switch to 'B/W' (black and white).
4. Confirm with **OK**.
5. To end, press **MENU**.

How can I change back to 'Automatic Switch-over'?

If you change the programme number, the video (colour) system for recording will switch itself back to 'AUTO' (automatic switch-over).

If you eject the cassette, the video (colour) system for playback will switch itself back to 'AUTO' (automatic switch-over).

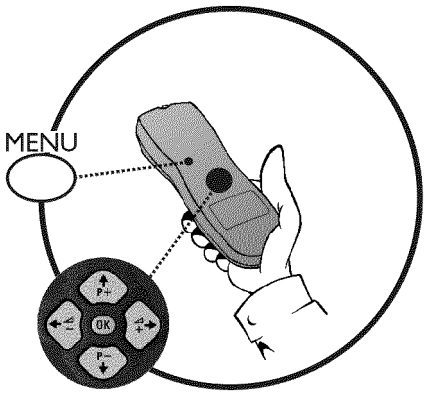


Child lock

You can prevent unauthorised use of your video recorder with this function. When the child lock is active, the buttons on the front of the device are blocked (will not function). You can make programmed recordings while the child lock is on.

1. With the video recorder switched on, press **CHILD LOCK** on the remote control for **five seconds**. ' ' will appear on the video recorder display.
2. Put away the remote control somewhere out of reach of children.
3. If you want to switch off the child lock, press **CHILD LOCK** again for **five seconds**, with the video recorder switched on. ' ' will disappear from the video recorder display.

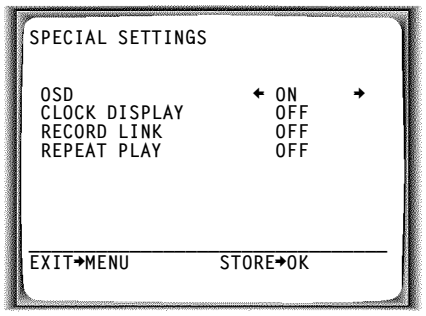
× ' ' **will flash in the video recorder display**
✓ This symbol flashes when a button is pressed when the child lock is active.



Switching the on-screen display (OSD) off or on

Along with the on screen menu, the OSD (On Screen Display) also displays information on the current operating status (counter, playback, recording, TV channel, etc.) on the TV screen. You can switch off the information about the operating status so that the on screen display (OSD) is not recorded when copying video cassettes.

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press **MENU** on the remote control. The main menu will appear.
3. Select line 'SPECIAL SETTINGS' using **P −** or **P +** and confirm with **OK** .



4 In the line 'OSD', select the desired setting with ◿+→ .

Which settings can I choose?
'ON': Shows the OSD for a few seconds only.
'OFF': Switches off the OSD.

5 Confirm with **OK** .

6 To end, press **MENU** .

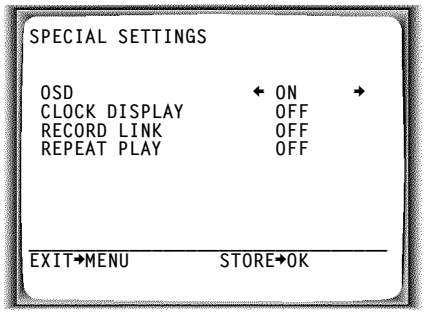
Switch off the clock display

To save energy, you can switch off the clock display on the video recorder. Programmed (TIMER) recordings will still take place.

1 Switch on the TV set. If required, select the programme number for the video recorder.

2 Press **MENU** on the remote control. The main menu will appear.

3 Select the line 'SPECIAL SETTINGS' with **P↓−** or **P↑+** and confirm with **OK** .

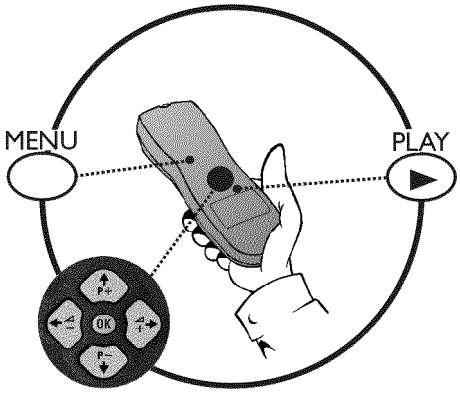


4 To switch off the time display on the video recorder, select in the line 'CLOCK DISPLAY' with ◿+→ 'OFF'.

How can I switch on the clock display?
Select with ←◿− 'ON' (time display switched on).

5 Confirm with **OK** .
'STORED' will briefly appear on the TV screen.

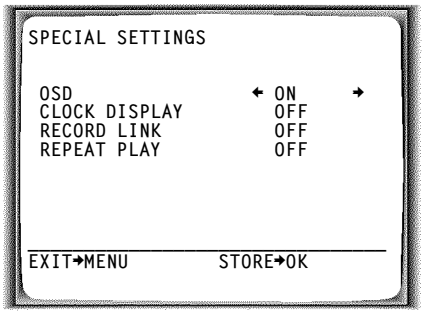
6 To end, press **MENU** .



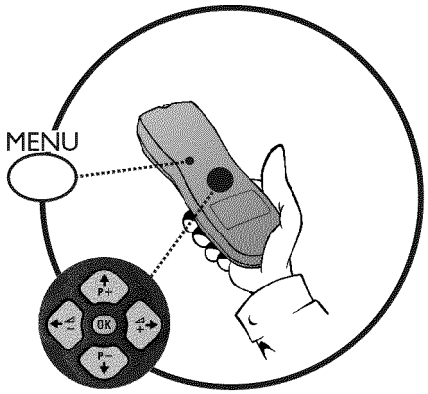
Continuous playback

This function can be used to play a cassette over and over again. When the end of the cassette is reached, the video recorder will rewind and start from the beginning again. This function is activated or deactivated as follows.

1. Press **MENU** on the remote control. The main menu will appear.



2. Select line 'SPECIAL SETTINGS' using **P↑+** or **P↓−** and confirm with **OK**.
3. Select line 'REPEAT PLAY' using **P↑+** or **P↓−** .
4. Select function 'ON' with **←◿−** or **◿+→** .
   If you select 'OFF', continuous playback will be switched off.
5. Confirm with **OK**.
   'STORED' will appear briefly on the screen.
6. To end, press **MENU**.
7. Insert a cassette.
8. Start the continuous playback with the **PLAY►** playback button.



Automatic switch-off

If you haven't used the video recorder for a few minutes in certain modes (e.g.: STOP), it will switch to standby automatically. You can cancel this function to use the video recorder as a television receiver.

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press **MENU** on the remote control. The main menu will appear.
3. Select line 'AUTO STANDBY' using **P↓−** or **P↑+** .

4. Select 'OFF' (no automatic switch-off) or 'ON' (automatic switch-off) with the menu buttons ◿+→ or ←◿− .

5. Confirm with **OK** . 'STORED' will briefly appear on the TV screen.

6. To end, press **MENU** .

Selecting the sound channel

You can select the desired sound channel during playback or while receiving TV channels via the video recorder. This allows you to select a desired language for multi-language transmissions.

1. Press **SELECT** . This will show the current sound setting.

What goes on behind the settings?

'STEREO':
Left and right stereo (HIFI) sound tracks can be heard.
'LEFT':
The left stereo (HIFI) sound track can be heard.
'RIGHT':
The right stereo (HIFI) sound track can be heard.
'MONO':
The mono (linear) sound track can be heard.
'MIXED':
The mono (linear) sound track can be heard at the same time as the stereo (HIFI) sound tracks.

2. Keep pressing **SELECT** until the desired setting appears in the display.

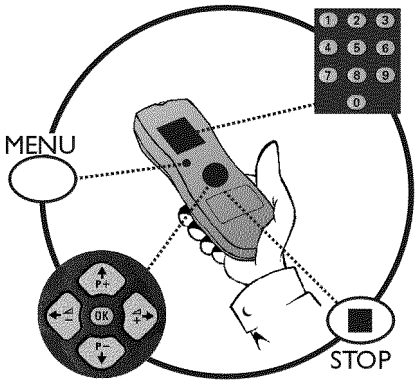
Automatic switch to 'MONO'

If a TV channel does not transmit a stereo signal or if there is no stereo signal recorded on the video cassette, the video recorder will automatically switch to 'MONO'. You will not be able to select any other settings.

Playing back an audio dubbing

When dubbing video recordings, the mono (linear) sound track is recorded with a new sound signal. The stereo (HIFI) sound track is kept. To hear the dubbed section, you must select either 'MONO' or 'MIXED'.

10 Suppressing interference



Optimising the modulator

In some reception locations it is possible that a TV channel will be sent on the same or similar frequency as the video recorder.
Result: As soon as the video recorder is switched on, the reception quality for this or several other TV channels will decreased.
The following steps will show you how to change the pre-set 'transmission' (modulator) frequency on the video recorder.

What is a modulator?

This electronic component in the video recorder allows the device to transmit audio and video signals via the aerial cable. These signals can be received TV set just like TV channels.

What is an modulator frequency?

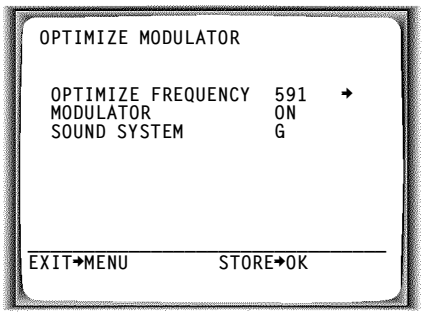
This frequency or channel indicates the frequency or channel on which the audio or video signal is transmitted.

1. Switch on the TV set. Select the programme number used for video recorder playback (see TV operating instructions).

2. Press **STOP/EJECT ■/⏏** to eject any cassette that might be in the device.

3. Hold the **STOP ■** button on the remote control.
In addition press the **STOP/EJECT ■/⏏** button on the video recorder until the pre-set modulator frequency e.g. 'M59 1' (591MHz or UHF channel 36) appears in the display.

   The video recorder will now transmit a test image on UHF channel 36/Frequency 591MHz.



4. Select line 'OPTIMIZE FREQUENCY' using **P↑+** or **P↓−** . Enter the new modulator frequency with the number buttons **0-9** .

5. Tune in the TV set to the new modulator frequency (channel 21 - 69) shown in the video recorder display.

× Sound interference occurs

✓ The wrong sound system could have been selected.
In line 'SOUND SYSTEM', select the TV system with the least sound disruptions using ◿+→ or ←◿− . 'G' (TV system PAL-B,G) or 'K' (TV system SECAM-D,K).

6 Confirm with **OK** .
'STORED' will appear briefly on the screen.

Optimising the modulator is now complete.

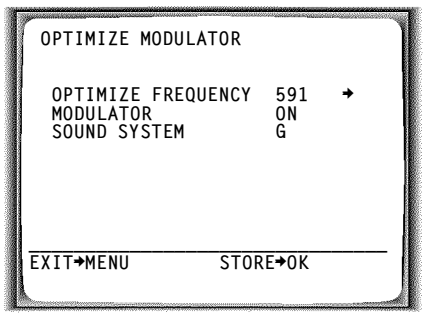
Switching the modulator on / off

If you cannot clear picture or sound interference despite optimisation, you can switch off the built-in modulator.
Warning:
this is only possible if you have connected the video recorder to the TV set with a scart cable. Without a scart cable you will not receive a picture from the video recorder on the TV set when the modulator is switched off.

1 Switch on the TV set. If required, select the programme number for the video recorder.

2 Press **STOP/EJECT ■/⏏** to eject any cassette that might be in the device.

3 Hold the **STOP ■** button on the remote control.
In addition press the **STOP/EJECT ■/⏏** button on the video recorder until the pre-set modulator frequency e.g. 'M59 1' (591MHz or UHF channel 36) appears in the display.



4 Select the line 'MODULATOR' on the TV screen or 'MOD+' in the display with **P↑+** or **P↓−** .

5 Select 'OFF' on the TV screen with **←◿−** or in the display 'MOD-' (modulator off).

How can I switch the modulator back on?
In the display, select 'MOD+' (modulator on) with **←◿−** .

6 Confirm with **OK** .

7 To end, press **MENU** .

11 Before you call an engineer

If, contrary to expectation, you have any problems using this video recorder, it may be caused by the following reasons. You can also call the **customer service centre** in your country.
The telephone numbers can be found on the back of this instruction manual. Have the model number (MODEL NO) and the production number (PROD.NO.) of your video recorder ready.

HOTLINE telephone numbers

The telephone numbers for after-sales service (HOTLINE) are also saved in your video recorder. To call them up, proceed as follows:

1. Switch on the TV set. If required, select the programme number for the video recorder.
2. Press **MENU** . The main menu appears.
3. Press **CLEAR (CL)** . The after-sales service telephone numbers will appear on the screen.
4. Using **OK** , you can select more telephone numbers.
5. To end, press **MENU** .

PROBLEM	SOLUTION
Your video recorder does not respond to any button being pressed:	✓There is no power supply: check the power supply. ✓A programmed recording is currently being made: if desired, cancel the programmed recording with **STANDBY/ON** ⏻ . ✓Child lock active: switch the child lock off. ✓There is a technical problem: disconnect from the mains power supply for 30 seconds, then connect again. If this doesn't help, you could reset your video recorder to the default factory settings.
Resetting devices to default factory settings	✓**Attention:** All the information stored (TV channels, time and date, TIMER) will be cleared. 1. Disconnect from the mains power supply. 2. Press and hold the **STANDBY/ON** ⏻**/I** button on the device and reconnect to the mains power supply. 3. Release the button when '0SD' appears in the video recorder display.
Cassette is jammed in the video recorder:	✓Don't use force. Pull out the mains plug for a moment.
Remote control does not work:	✓Remote control not pointed toward the video recorder: point it at the video recorder. ✓There is a technical problem: Take out the batteries, wait for 10 seconds and place them back. ✓Batteries have run out: change the batteries.
No picture when you play a cassette:	✓There is no recording on the cassette: change the cassette. ✓You have selected the wrong programme number on the TV for playing cassette: on the TV, select the correct programme number for the video recorder. ✓The cable connecting the TV set and the video recorder has come loose: check the cable.

PROBLEM	SOLUTION
Poor picture quality when you play a cassette:	✓Your TV set is not properly adjusted. ✓The cassette is badly worn or of poor quality: use new cassette. ✓Tracking is not properly adjusted: turn to chapter 'Eliminating picture interference' and read the section 'Optimising tracking'. ✓Please read chapter 'Eliminating picture interference'. ✓You haven't selected the correct video (colour) system for playback: Turn to chapter 'Additional functions' section 'Changing the video (colour) system'.
No recording possible:	✓The TV channel you want to record is not stored or you selected the wrong programme number: check TV channels stored. ✓A cassette was inserted that does not have the security tab (cannot be used to record): Insert a cassette with an intact security tab or change cassette. For more information, please see the section 'Preventing accidental erasing of cassettes' in chapter 'Manual Recording'. ✓'VPS/PDC' switched on but 'VPS/PDCtime' wrong: 'enter 'VPS/PDCtime exactly to the minute. Have your aerial checked.
Programmed recording does not work:	✓You have programmed the wrong time or date: check time and date. ✓Check time and date. If time and date are wrong despite manual setting, you can switch 'SMART CLOCK' off. Please read the section 'Setting the time and date' in the chapter 'Installing your video recorder'. ✓You have not set the TIMER properly: Check the programmed recordings (TIMER block). ✓You have put in a cassette that cannot be recorded on: undo the erase protection on the cassette.
The wrong TV channel was decoded (entered) after you programmed a recording using ShowView	✓1. Enter the ShowView programming number of the desired TV channel. 2. Confirm with **OK** . 3. Check the programme number/channel name in the 'PROG.' input field 4. If this does not correspond to the desired TV channel, select the input field and change the programme number/channel name. 5. Confirm with **TIMER** ⏲ .
There is picture or sound interference on TV reception:	✓Turn to chapter 'Suppressing interference' and read 'Optimising the modulator' and 'Switching on/off the modulator'. ✓Have your aerial checked. ✓You will find information on how to switch the TV system in chapter 'Installing your video recorder' section 'Manual TV channel search'.